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ABSTRACT

This essay is a companion document to a statistical study of student dropouts conducted by the San Diego City Schools. Various definitions of dropout are presented, as well as a discussion of types of dropout or attrition rates: (1) annual dropout rate; (2) enrollment ratio dropout rate; (3) cumulative tracking dropout rate; and (4) estimated cumulative dropout rate. Based on a review of the literature, demographic, school- related, and other characteristics of dropouts and factors leading to the decision to drop out are described. A systems theory perspective is used to identify three general classes of factors that affect a school system's dropout rate: (1) characteristics of the students entering the school system (input factors); (2) characteristics, policies, and programs of the system itself (throughput factors); and (3) economic and social conditions of the surrounding community, state, and nation (environmental factors). To establish the foundation for a theory of retention, four types of dropout/attrition explanation are distinguished, made up of two kinds--academic and empowering, and two levels--individual and school system. Within a systems perspective, an empowering theory of student retention is proposed. According to this model, a school system can increase its student retention rate by successfully delivering communications of personal support to each student and enabling each student to successfully meet meaningful academic challenges. Forty-two references are provided. (MW)

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San Diego City Schools
PLANNING, RESEARCH, AND EVALUATION DIVISION

ED279733

AN ESSAY ON SCHOOL DROPOUT FOR THE SAN DIEGO UNIFIED SCHOOL DISTRICT

June, 1985

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RESEARCH DEPARTMENT REPORT

AN ESSAY ON SCHOOL DROPOUT
FOR THE
SAN DIEGO UNIFIED SCHOOL DISTRICT

(Supplement to the 1982-83 School Leaver Study
presented to the Board of Education, April 9, 1985)

By
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June 24, 1985

San Diego City Schools
Planning, Research and Evaluation Division
Research Department

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SAN DIEGO CITY SCHOOLS
Research Department

EXECUTIVE SUMMARY

AN ESSAY ON SCHOOL DROPOUT FOR THE SAN DIEGO UNIFIED SCHOOL DISTRICT

Issue/Concern

The problem of students permanently leaving school before receiving a high school diploma is currently a focus of concern for the public, the legislature, the California State Department of Education, and school districts. This concern is evidenced by the many recently published newspaper articles on school dropouts; the introduction of legislation to define the term 'dropout' and to develop dropout prevention programs; and the inclusion of a school's dropout rate as a Quality Indicator under the State Department of Education's Accountability Program.

On April 9, 1985, the Research Department presented the 1982-83 School Leaver Study to the Board of Education. This statistical study updated and went beyond a previous study of the 1979-80 school leavers. This essay introduces a wider context of information and theory concerning school dropouts than was possible in the April 9 report.

Summary

Several definitions of each of the terms 'dropout' and 'attrition rate' are distinguished in this essay. Since a change in definition can result in significantly different dropout numbers and rates, great care must be taken in comparing dropout statistics and reports. An examination of the research literature reveals a number of consistent correlates to drop out involving demographic, school-related, and psychological characteristics of students. These include sex, racial/ethnic background, socioeconomic status, language minority status, prior school performance, achievement test scores, and academic self-esteem. Several studies have found dropout in high school to be highly predictable from readily available data by as early as the third grade. The great majority of dropouts had been very poor academic performers for several years prior to dropping out. Students leave school in order to escape this day-to-day experience of failure. Hence, enabling students to perform successfully in school would increase student retention to graduation.

Students report a variety of school related factors as chief among their reasons for dropping out. Rather than citing irresistable outside attractions, many dropouts acknowledge their poor academic performance as their major reason for leaving school. Studies involving interviews with marginal students give a sense of their experience of failure and alienation from school and their more successful peers.

When student characteristics and socioeconomic conditions are stable, changes in a school system's attrition rate measures its changing effectiveness in creating an educational environment in which students can be successful and in meeting the goal of providing all young people with a high school diploma. In general, however, it is almost impossible to use comparisons of dropout rates among school districts as a measure of their relative effectiveness because student characteristics and local socioeconomic conditions vary so greatly from one district to another.

Since school districts would like to know not only who drops out and why but also how to retain a higher percentage to graduation, the foundation for an retention theory is laid with the examination of the nature of dropout explanations. Four types of dropout/attrition explanation are distinguished. There are two kinds of explanation, academic and empowering, each with two levels of analysis, individual and school system. Academic explanations have an inherent structure that obscures the power of school systems to reduce their attrition rates. Empowering explanations take into account the circumstances, needs, powers, and purposes of agents that wish to produce change and, in the case of student dropout, show just how school systems can affect their dropout rates by assuming responsibility for it. The willingness to be responsible reveals the powers and mechanisms to affect the change.

The levels of explanation can be connected in a conceptually useful way with a systems theory perspective, the underlying framework of this essay. The student and the school can both be regarded as systems. The student, as system, is nested within the larger school system. The functional connection between the levels is that the student's external environment is the school system's internal environment.

Within this systems perspective an empowering theory of student retention is proposed. This model connects the school system level with the individual student level through the meanings the student attributes to his or her external environment - the school system's internal educational and social environment. Students desire to maximize their personal satisfaction. This satisfaction depends upon two sources: the experiences of being supported and of meeting challenges. According to this model, a school system can increase its student retention rate by successfully delivering communications of personal support to each student and enabling each student to successfully meet meaningful academic challenges.

Recommendation

This essay is provided as information only.

Budget Implication

No buget implications.

Some men see things as they are and say, 'Why?'
I dream things that never were and say, 'Why not?'

George Bernard Shaw

I. INTRODUCTION

The purpose of this essay is to introduce a wider context of information and theory concerning school dropouts than possible in Part I of this report. This information will enable the reader to assess the significance of dropout data and provide a framework for developing explanations that enable school districts to reduce student attrition rates.

Definitions of School Dropouts

The definition of 'dropout' varies widely from district to district and even from school to school within the same district. Some districts have dropout definitions that count students who die before graduating, who transfer to another district or even to another school program within the same district, who leave public school to enroll in a business or trade school, or who take advantage of an early-admissions offer from a college or university. On the other hand, students who get married and leave school or who leave after passing the compulsory attendance age are not recorded as dropouts in some districts. [See Treadway, 1984, p 1]

Each definition of 'dropout' on the following list has wide currency. The list is ordered from the most comprehensive or inclusive to the least inclusive. A 'dropout' is:

- a student who leaves the system (a school or a district), for whatever reason and destination, after a minimum matriculation period
- a student who leaves the system and does not transfer to another regular public or private school system
- a student who leaves the system, does not transfer to another system, and is not enrolled in an alternative educational program such as the GED, adult education, armed services, or the penal system
- a student who leaves, does not transfer, does not participate in an alternative educational program, and who is physically able to participate
- a student who leaves, does not transfer, does not participate in an alternative educational program, is physically and mentally able to attend and participate

Not only are there several definitions of dropout but each element of these definitions can be interpreted in various ways. Therefore, great care must be exercised in making comparisons of dropout data from different districts. Generally, comparisons are inappropriate.

Types of Attrition Rates

There are several types of dropout or attrition rates. In general, a dropout or attrition rate is the ratio of dropouts to total enrollment, over a specified time period, expressed as a percentage. For example, if 200 students dropped out of a 9th grade class of 1000 during the year, then the dropout or attrition rate of that class for that year would be 20%. Some widely used rates are the following:

- Annual Dropout Rate: The percentage of dropouts who leave a class, school or district within one year. For example, the annual dropout rate for the 10th grade at a certain high school may be 8%.

- Enrollment Ratio Dropout Rate: This is a dropout rate which reports the ratio of the differences of the total enrollments of successive years and grades compared to a base year and grade. For example, if the 9th grade class has an enrollment of 1000 and the 10th grade class, one year later, has an enrollment of 900, then the enrollment ratio dropout rate is 10% (1000-900/1000). This method of calculating a dropout rate does not consider transfers into and out of the class. On the other hand, it is an easy rate to calculate since the data are readily available. It may even be an accurate measure of drop out if the system is large and sufficiently self-contained. For example, the California State Department of Education in September, 1983 reported an overall attrition rate of 31.1%, based upon comparing the ninth-grade enrollment of 1978-79 to the number of graduates in the class of 1982. [Cited in Nespor] Given the implied definition of dropout and the comprehensiveness of the system, minimizing the effects of transfers into and out of it, this figure can be regarded as a fairly good estimate of the true dropout rate over that four-year period for California. However, similiar computations of the dropout rate for a school district within the state are not likely to be accurate.

- Cumulative Tracking Dropout Rate: The most accurate method for calculating an attrition rate is to track each member of a selected class over the following year or years to determine who persists and who drops out. Of a 9th grade class of 1000 students, this method can determine that, by graduation four years later, 28% have dropped out, 15% have transferred, 51% graduated on time, and 6% remained enrolled in the system.

- Estimated Cumulative Tracking Dropout Rate: When data for a true tracking rate are not available, an estimated three- or four-year tracking rate can often be calculated from the annual rates of each grade by modeling techniques. An

example of this rate appears in Table 10 of Part I of this report.

II. INSIGHTS FROM THE LITERATURE ON DROPOUT

Over the past 20 years much research on student dropout and attrition rates for secondary schools has been conducted. Some highlights and patterns uncovered in that research are discussed in this section. No attempt is made at an exhaustive review. The intention is to outline the general nature of findings that are likely to be of special interest within the San Diego Unified School District.

Characteristics of Dropouts

There have been many studies which correlate student characteristics and dropping out. The great majority of the research literature, in fact, consists of studies of this type. Three general areas of student characteristics have been reported in these studies: (1) demographic characteristics; (2) school related characteristics; and (3) psychological states and interpersonal relationship characteristics.

There is no dispute among researchers as to the relationship of ethnicity to dropping out. Virtually every study that includes these variables has found that dropping out is more likely among Hispanics than Blacks and more likely among Blacks than Whites. Asians, on the other hand, are the least likely to drop out. Indians/Alaskan natives drop out at the highest rates of any ethnic group. [Carnegie Council, 1979; Rumberger, 1981; Washington State, 1974; LAUSD, 1985; Curtis, 1983]

The High School and Beyond (HSB) study of National Center for Education Statistics [NCES, 1983] is a comprehensive national study with representative findings. In this study a group of high school sophomores were tracked and surveyed after two years. Some of its findings are displayed in Table 1. The findings displayed in the table show that Asians drop out of school at a rate only 1/4 that of Whites; Blacks drop out at a rate 1.4 times and Hispanics about 1.5 times that of Whites. Similiar ratios are found consistently in other studies.

The HSB study also found that high school sophomores from the lowest of three socioeconomic strata dropped out at rates three times higher than those from the highest stratum. This finding is consistently reported in virtually all studies assessing this variable. Bachman [1971a, 1971b], for example, found in a longitudinal study of 2,000 boys between 1966 and 1970 that 23% of the boys from the bottom socioeconomic strata dropped out of school compared to 4% from the top stratum.

TABLE 1

1980 HIGH SCHOOL SOPHOMORE DROPOUTS
BY SEX AND SELECTED BACKGROUND CHARACTERISTICS

Background Characteristics	Males	Females	Total
All Students	14.7	12.6	13.6
Race/Ethnicity			
Am Indian/Alaskan	27.2	31.8	29.2
Hispanic	18.1	18.0	18.0
Black	20.3	14.1	17.0
White	13.0	11.5	12.2
Asian American	3.5	2.7	3.1
Socioeconomic Status			
High	7.0	3.2	5.2
Middle	9.6	8.3	9.0
Low	17.8	17.1	17.4
Unknown	32.3	30.9	31.6
High School Program			
Academic	4.5	3.6	4.0
General	12.7	13.0	12.9
Vocational/Tech	16.9	13.2	15.1
Self-reported Grades			
Mostly A's	2.0	3.5	2.9
Mostly B's	7.8	8.4	8.1
Mostly C's	18.1	19.1	18.5
Mostly D's	41.7	44.1	42.5

Note: All percentages are based on computations using weights that made adjustments for non-response and unequal probabilities of sample selection.

Source: High School and Beyond. National Center for Education Statistics, 1983.

Socioeconomic status and ethnicity are themselves correlated, so research has often sought to determine the effect of one while controlling for the other. When ethnicity is controlled for factors of socioeconomic status, the dropout rate among Blacks is virtually identical to that of Whites, but Hispanic students still drop out at

rates far in excess of White or Black students. For example, while middle class Whites and Blacks drop out at the same rate, middle class Hispanics drop out at considerably higher rates. [Steinberg, Blinde, & Chan, 1984; Rumberger, 1981; Bachman, 1971a, 1971b] Rumberger [1981] using the National Longitudinal Survey of Youth Labor Market Experience data on persons 14-21 years old, demonstrates that among the economically disadvantaged the Hispanic dropout rate is roughly 1.5 times greater than the rate among comparably disadvantaged Whites. This suggests that the higher dropout rate of Hispanics is not solely due to their greater economic disadvantage. In fact, Steinberg, Blinde, and Chan [1984] in an excellent and extensive review of the literature on language minority youth, conclude that non-English language background, and perhaps some other factors unique to Hispanic students, increase their likelihood of dropping out.

Table 2 is adapted from the Steinberg, Blinde, and Chan article and shows the relationship between ethnicity and language usage found in the Survey of Income and Education conducted by the U.S. Bureau of the Census in 1976 with the support and assistance of the National Center for Education Statistics.

TABLE 2

PERCENTAGES OF PERSONS 14 TO 25 YEARS OLD
WHO HAD NOT COMPLETED 4 YEARS OF HIGH SCHOOL
AND WERE NOT CURRENTLY ENROLLED
BY TOTAL, ETHNICITY, AND LANGUATE CHARACTERISTICS

Ethnic Origin	Total	English Lang Background	Non-English Lang Bkgrd Usual Indiv Lang			
			Total	Eng	Non-Eng	N.A.
	(1)	(2)	(3)	(4)	(5)	(6)
(1) Total Attrition Rate	11	10	18	12	40	11
(2) Persons of Other than Hispanic Origin	10	10	12	10	30	8
(3) Hispanic	24	16	25	15	45	20

Note: Persons not enrolled at any time from February - May, 1976.

Source: Adapted from Steinberg, Blinde, and Chan [1984]; Survey of Income and Education conducted by the U.S. Bureau of the Census, Spring 1976, preliminary data.

Steinberg, Blinde, and Chan (p.116) point out that independent of language usage, persons of Hispanic origin drop out at more than twice the rate of non-Hispanic students (see column 1: 24% vs. 10%). On the other hand, holding ethnic origin constant, the table shows that persons from non-English language backgrounds drop out at nearly twice the rate of students from English language backgrounds (row 1: 18% vs. 10%), Hispanics (row 3: 25% vs. 16%) more than non-Hispanic (row 2: 12% vs. 10%) persons with non-English backgrounds.

Putting ethnicity aside, students from homes where English is not spoken and who do not speak English drop out at a rate four times that of students who are from an English speaking background (row 1: 40% vs. 10%). Whether a person speaks English is a far more important correlate of dropping out than whether the student comes from a non-English speaking background (row 1: 40% vs. 12%). However, the table also shows that among those from non-English language backgrounds, Hispanics drop out at about twice the rate as non-Hispanics (column 3: 25% vs. 12%) and among those persons who do not speak English the dropout rate of Hispanics is about 1.5 times higher than for non-Hispanics (Column 5: 45% vs. 30%). When language or socioeconomic status are held constant, Hispanics drop out at a rate of between 1.5 and 2 times greater than non-Hispanics. Unfortunately, no analysis assessing the independent contributions of ethnicity, language usage, and socioeconomic status can be found.

Regarding school-related student characteristics, there is a strong consensus across studies [e.g., Bachman 1971 a & b; Alexander et al, 1976; Combs and Cooley, 1968; Cook, 1956; Lloyd, 1978; Penty, 1956, and Walters and Kranzler, 1970] that there is a high correlation between measures of academic achievement and dropping out. Dropouts are more likely to have scored lower on reading and mathematics aptitude and achievement tests, to have received lower grades, and to have been held back a grade than their persisting counterparts. The High School and Beyond data of Table 1 are again typical. Those students reporting grades of mostly D's drop out at a rate more than twice those reporting mostly C's (42.5% vs. 18.5%) and five times that of those reporting mostly B's (42.5% vs. 8.1%).

Beck and Muia [1980] found that a student from a low socioeconomic background stratum who fails either of the first two grades has only a 20% chance of graduating and that dropouts are held back five times more often than are graduates.

Steinberg, Blinde, and Chan [1984] state that language minority status appears to be associated with being held back and with lower academic achievement and this correlation is considerably stronger among Spanish-speaking pupils than among non-English speaking students whose primary language is not Spanish. They report some studies which indicate "that non-English-speaking youngsters whose primary language is not Spanish suffer little disadvantage." They also conclude that the

lower school achievement of non-English speaking students is not due to cognitive deficiencies. In summary, they say:

> It is not surprising to learn that not having English as a primary language impedes a youngster's performance in schools in which English is the language of instruction. Because early academic problems are associated with premature school-leaving, one could surmise that language minority youngsters drop out of school at a higher rate than their English-speaking peers primarily because language minority youngsters are more likely to encounter academic difficulties early in their scholastic careers.
>
> This hypothesis, however reasonable, does not account for the fact that dropping out is more prevalent among language minority Hispanics than among other language minority subpopulations. Indeed, the most challenging question raised by this review of the literature is why language minority status appears to be more of an impediment to the school success of Hispanic youngsters than to other ethnic groups. At present, data are not available to answer this question.

Since the great majority of dropouts do poorly in school—as measured by GPA's and grade promotion—and on standardized tests, it is not surprising to find reasearchers reporting that dropouts have "low self-esteem, little desire for self-growth, and limited commitment to accepted social values" [Beck and Muia, 1981]. Wehlage and Rutter [1984] found that academic self-esteem—a student's perception of his/her ability to succeed at academic tasks--and their general feelings of personal autonomy—the power to influence the environment and to effect the outcomes they wish—are lower for dropouts than for graduates. Understandably, therefore, dropouts express a great deal of dissatisfaction with school [Bachman, Green & Wirtanen, 1971; Cervantes, 1965; Yudin et al., 1973; Hewitt and Johnson, 1979]. Beck and Muia [1980] suggest that for many potential dropouts, "Day after day, the child is forced to attend a school which destroys his concept of self-worth, instills feelings of insecurity and frustration, and reinforces his ideas that he is unable to learn."

These experiences also seem to be associated with ethnic background, language minority status and lower socioeconomic status. In other words, they are correlated with the characteristics of non-mainstream group identities. Dropouts have been found to express feelings of alienation from their schools, homes, neighborhoods, and/or society in general. Students who feel rejected because of language, ethnicity, culture or religion are extremely susceptible to dropping out [Beck and Muia, 1980]. Dropouts participate less in both academic and extra-curricular activities in school [Olsen, Edwards, and Gonzales, 1982] and develop attendance problems early [Barro, 1984]. Since alienation often expresses itself in delinquent behavior, it is not

surprising to find that disciplinary trouble in school and delinquent behavior is far higher among dropouts than among persisters; [Hawkins and Weis, 1980].

No doubt "vicious cycles" are established among the variables of academic performance, academic self-esteem and dropping out. Lowered academic self-esteem leads to loss of interest which leads to less attention and intention and consequently lower grades. Poor grades lead to feelings of failure and a loss of academic self-esteem. Eventually the cycle ends with the student dropping out.

Several studies have attempted to assess the overall predictability of dropout. One recent study [Curtis, 1983] was conducted by the Austin Independent (Public) School District. The longitudinal study encompassed four school years (1977-1981) and included all 5,039 students enrolled in regular Austin schools during 1978-79 school year who were 14 years old. Of these students 68% were at grade level (9th grade), 25% were below grade level, and 7% were above grade level. Students eventually fell into four groups: non-leavers (69.5%), transfers (11.9%), dropouts (11.7%), and other/unknown (6.9%). By using only five variables for which information was readily available in the district's student computer database at the beginning of the four-year period, Curtis developed a discriminate analysis model that enabled a 78% degree of accuracy in correctly classifying those who became dropouts. Their variables included grade point average, whether held back a grade, sex, ethnicity and number of serious discipline problems.

In another study, Walters and Kranzler [1970] tried to predict the dropping out of ninth graders based on information collected at the time they entered the ninth grade. Using a combination of student I.Q., age (no doubt a proxy for grade retention before ninth grade), mathematics achievement test scores, and father's occupation, they correctly identified 91% of all students who dropped out during the remaining years of high school. Lloyd [1978] reports that potential high school dropouts can be identified with 75% accuracy as early as the third grade. He used a combination of father's education, father's occupation, mother's education, parent's marital status, third grade reading and math achievement test scores, third grade GPA, third grade I.Q., and prior grade retention.

These studies have two major implications. First, students at risk of dropping out can be identified with reasonable accuracy from information readily available in district computer files. It is likely that students so identified but who do not drop out also could benefit from dropout prevention programs. The second implication, explicity noted in the Curtis [1983] study and implicit in the others, is that the content of dropout prevention programs need not be culturally specific. Curtis reports that "there do not seem to be any ethnic-specific characteristics of Black and Hispanic students which operated to increase dropout rates independent of academic accomplishment." The improvement of academic performance as reflected in GPA and grade

promotion appears to be the most important target for dropout prevention.

The Reasons Students Give for Dropping Out

Correlates and even models enabling accurate prediction of dropout do not explain dropping out, since the relationships between variables are not necessarily causal. Furthermore, even if these correlates were causal and did explain dropout, the explanation may not enable a school system to reduce attrition because usually most of the variables are beyond a school system's control. Even school related factors such as grade retention prior to high school and third grade reading and math scores cannot be affected by high schools who must deal with potential dropouts among their student bodies. Explanations that are useful must have causal variables within the school's control. With respect to an individual student's choice to drop out, an explanation must include the dynamics of the individual's experiences and psychological states.

One way to get a sense of these experiences and states is to examine the reasons dropouts give for leaving school. Of course, post hoc reports by dropouts must be viewed with caution. Common sense says that it is normal for individuals to rationalize behavior which they and others may regard as indicating failure. Nevertheless, these reports suggest some of the attitudes and experiences that potential dropouts have and how they relate to dropout decisions.

A number of researchers have surveyed or interviewed dropouts about their reasons for leaving. Only a few studies are singled out here because all the research findings are remarkably similar. Barber [no date] and the Los Angeles Unified School District [LAUSD,1985] each interviewed dropouts after they left school. The results, summarized in Table 3, are similar for all common items. Most of the reasons students gave for leaving school (13 of 15 for the Barber Study and 9 of 14 for the LAUSD Study) were school related. Attendance problems, lack of interest in school, boredom in school, and academic problems were each cited by over a third of the samples. Similarly, a study of Worster, Massachusetts inner-city students, reported that more than 70% of the dropouts said they might have stayed if school had been different, particularly "if teachers had paid more attention to students," "if they were treated as students and not as inmates," and if teachers had made it fun to learn. [Reported in Wells, 1983]

Doss and Holley [1985] in interviews with Austin (Texas) Independent School District high school dropouts had similar findings. School-related reasons were the primary factors cited by the dropouts. Dropouts reported they "were behind their peers in achievement, their grades were low, and they had earned few credits for their age. This lack of academic preparation and success was the most frequently mentioned reason for dropping out." Doss and Holley reported that, "In

TABLE 3

REASONS STUDENTS GIVE FOR DROPPING OUT

Reasons	Barber [no date]	LAUSD [1985]
Attendence Problems	50%	--
Lack of Interest in School	36%	31%
Boredom with School	35%	--
Academic Problems, Grades	30%	39%
Problems with Teachers	30%	24%
Family Problems/Responsibilites	29%	39%
Problems with Assigned School	22%	11%
Disliked a Particular Course	20%	--
Problems with Administration	19%	--
Disliked Everything	17%	--
Problems with Counselors	15%	--
Problems with Other Students	14%	20%
Discipline problems/suspension	13%	11%
Felt too old for School	13%	33%
Financial Problems	13%	21%
Work Responsibilities	--	30%
Marriage	--	3%
Health	--	14%
School Behavior	--	17%
Transportation Problems	--	10%
Juvenile Court Placement	--	2%

Sources: Barber [no date] and LAUSD [1985]

reviewing student records for the study, it was not uncommon to find students with one, two, three, or more semesters of all F's." They concluded: "Attending (high) school must be extremely aversive under such conditions. If students do not already dislike school, they soon will. Then they opt to leave at the first opportunity."

Doss and Holley also found that almost half their sample cited personal or economic reasons as their primary reason for dropping out. About 8% reported health related problems. In the LAUSD [1985] study 14% reported health problems as a factor. None of these studies reports that positive factors outside of school were a significant factor in dropping out. In the Austin study, if all the supposedly positive factors were grouped together (such as wanting to work or get married) only 13% could be said to be attracted away from school. The authors of the LAUSD study evidently didn't even consider being attracted away from school as a possibility, since all of the choices for reasons to leave

given to students to chose from were "problems" (except possibly marriage).

Doss and Holley, based on the experience of their interviews, point out that "despite the frequent appearance of identifiable precipitating events which provided the proverbial straw that broke the camel's back, the mass of weight favoring dropping out accumulates over many years." Their interviews also revealed that "in many cases the decision to leave may have been a reasonable response to the situation, especially in those cases where the students were getting nothing from school and may have been disrupting the learning of others."

The Marginal Student: A Closer Look

Since it is evident that it is the poorly performing student who eventually drops out, a closer look at the "marginal" student is worthwhile. In this section, a study by Gary G. Wehlage [1983] is quoted extensively. This study, published by Phi Delta Kappa, describes the characteristics and attitudes of a group of about 30 poorly performing, marginal students known as the "Hutters" at a large high school serving a predominately urban, white, middle-class community. The Hutters are mostly freshmen and sophomores and are also part of a larger group that adolescents often call "freaks." Wehlage reports:

> In our study we asked, What was it about their school experiences that caused these students to openly resist and reject an institution that claims to serve them? ...
>
> The Hutters attribute many ... negative experiences to the treatment they receive from teachers and administrators. One of the Hut regulars [the Hut is a coffee shop after which the Hutters are named] articulated what many in the group feel. "The school doesn't really care about you as a person. I mean, if you want to come to school, fine. If you don't, then don't hang around." There is no sense of belonging to the school for the Hutters; they feel unwanted. This alienation from the school is reinforced for many of them on a daily basis by their teachers. Della, one of the Hutters, offered a specific example of the rejection felt by her group:
>
> > Mrs. L. is not a very good teacher. She doesn't really care if you do the work, and the stuff that she teaches, she just skims over it expecting you to know it. Mrs. L. is here to teach for the money, she's not here to teach <u>us.</u> She throws a book at us and tells us to read these pages and write a paragraph. I told her I need extra help. I try my best, but she doesn't give much personal attention.

Della went on to say that some of her teachers, rather than give her personal attention, would even give a "passing grade so they don't have to have you anymore."

The kind of interactions Hutters have with adults in the school seem to alternate between being ignored on the one hand and "hassled" or criticized on the other. For example, Ken, a student on the verge of dropping out, says:

> School is just one word - BUMMER. I hate it. I've got one class a day. It's the only class I can pass. I started with a full schedule - six, but I haven't been to class since Christmas - just got sick of it. It's easy to skip.

On the other hand, Bill says that if you try to be back into school after skipping a lot you get hassled by the office:

> Like Mr. P. [a principal], you go to him in the hall and ask him about getting back into class and he hassles you. You go up to get a pass for an unexcused absence and they treat you like shit. Even if your parents go up to school, they give them shit. You feel like they're saying, "My god, when is this guy gonna get out of here?"

The word "caring" is a prominent one in both the Hutters' perceptions of the adults in the school and the adults' perceptions of the Hutters. The Hutters are labeled a "don't care" group, and the adults are seen as "not caring" for these students.

In our study of the Hutters, we fully expected to find them in conflict with the school's teachers and administrators, but we also discovered another arena of conflict that we had not anticipated. This was between the Hutters and the amorphous group of peers called "jocks." So sharp and significant did the Hutters see this conflict that it may be more important in some respects than their conflict with adults. It is important because conflict with their peers seems to have an impact on their identity and future orientation. ... The conflict between the Hutters and jocks indicates that there is not only a specific rejection of school but also a general alienation from the society represented by the jocks. The jocks are seen as the symbol of conventional society.

The jocks and the Hutters are in conflict over a number of issues. There are differences over the value of school achievement, athletics, clothes, drugs, and space that is occupied for socializing. A female Hutter described the difference between the groups as follows:

> The line between them is the motives. With freaks, it's part of life to smoke [pot], like things are getting heavy and I have to get away from it, no matter what anyone else thinks. For jocks school is a big showplace for them. They dress up and see how many boys they get to run after them. Jocks want to be like everyone else. Freaks are all so different. There's lots of individualism. I think the freaks are a little bit open-minded and carefree and easy going. And they are happy with themselves. Whereas the jocks are always worried about what others think of them.

A jock was asked what the term freak means to him;

> Beats, dirtballs, quaaludes - call them anything that has to do with drugs. A freak is a person who smokes marijuana during the school day. It's someone who doesn't know the meaning of soap.

Ted, who is especially articulate about his feelings, made the following comments about jocks:

> Sitting in English class reminds me of sitting in a bowl of Froot Loops. The jocks are unbearably idiotic. They laugh at anything they say. The big jocks make totally stupid faces and comments at the girls. I find it positively sickening listening to their synthetic talk, such as, "Oh, how are you, you look so nice today. Are you going to the mixer Friday with a big jock? Are you going out for sports? Oh, my hair, I can't do a thing with it." Sometimes I think I'm playing a part in Alice in Wonderland.

Members of each group were asked to project what they thought members of their own group and the other group would be doing after high school. A pattern of agreement was evident both within and between groups.

A female Hutter said, "most of them [jocks] get a good paying job or go to college, but the people who hang out at the Hut just get a job. Some of them join the Army. It's something for them to do." A friend agrees with her. "Most of the jocks will go to college - school is all they're into. They're not outgoing in life like we are. A lot of jocks, they'll go to college for four years and marry a doctor and have kids. I want more out of life." On the other hand, this person described her group as getting "small jobs." The girls will work as waitresses. The guys will be working in gas stations.

A female jock predicted that most of her group will go to college. "Some will go higher, like a master's." On the other

> hand, she saw freaks getting "minimum wage paying jobs." Freaks tend to agree with this assessment of their future. For example, when asked what his group would be doing in five years, Tom replied, "getting fired from jobs or collecting unemployment."
>
> There is a curious ambivalence in what [the Hutters] say about their future role in the work force. The Hutters seem to assert a sense of superiority over the jocks. The jocks are seen as frivolous and shallow, excessively concerned about conformity and achievement. The Hutters project a future in which the jocks get the "good jobs," but this is said in a way that seems to deny those jobs are desirable. The jobs are "good" only in the conventional culture, but the Hutters do not want to be part of this culture. They want "more out of life."
>
> It this posture genuine? Are these adolescents representative of a counterculture that has a different value of what constitutes the good life? Or is this attitude all "sour grapes"? It may be that putting down the jock's culture as "inferior" is a simple defense mechanism and, when a few years have passed, the Hutters will be disappointed and bitter about their lack of success in the mainstream of American society. There may well be a sense of hopelessness as they face the future with no diploma, no skills, and few opportunities to engage in other than entry-level positions at minimum wage. Our interviews with other dropouts who are now young adults indicate that a substantial majority of them feel a sense of missed opportunity as a result of their failure in school. We expect that many of the Hutters who feel rejected by the school and who respond by rejecting the school will someday regret their situation.

The value of Wehlage's study is that it provides a concrete sense of the frustration, failure, and alienation poorly performing students experience. Evidently, a vicious cycle of mutual lack of respect, care, and commitment is set up between the marginal student and school personnel. Marginal students feel unwanted and uncared for. They feel that teachers want to get rid of them rather than give them the attention and support they crave. Consequently, they lose respect, care, and commitment for school. All of this is often complicated and reinforced by an alienation from the great majority of their peers and indeed from mainstream society.

For 'jocks,' school is a place to demonstrate and experience success. Such experience becomes self-reinforcing and self-generating. Naturally, an environment providing and enabling success is honored and appreciated by those successful in it. For 'freaks,' school is a place to experience failure and rejection. This also is self-reinforcing and self-generating. An environment providing persistent failure and

rejection is an environment that comes to be hated, denigrated, and resisted.

If schools could find ways to communicate personal caring and faith in the poorly performing student's abilities, then the vicious cycle perhaps could be broken. The communication required would have to be very strong and very persistent, however, to breakthrough the defenses, resistences, and self-fulfilling perceptions of marginal students. But such communications are not impossible and the results could ultimately justify the effort.

III. A FOUNDATION FOR A RETENTION THEORY

The Meaning of Dropout Rate Data: A Systems Theory Perspective

In and of itself a dropout rate is simply an empirical fact. A district might have a total annual high school dropout rate of 8%. The significance of this fact depends upon many factors including: questions of definition and methods of calculation; the size of the rate relative to earlier rates or to comparable data from other districts; the framework or theory used to understand or explain dropout; and the missions, goals, and values of the district.

Since one goal of the public schools is to see to it that every student receives a high school diploma, dropout rates are one index of a school system's effectiveness. Thus, changes in a school system's historical dropout rates measure increasing or decreasing system effectiveness.

Using a systems theory perspective, there are three general classes of factors that affect the dropout rates of a school system. These are: 1) the characteristics of the students entering the school system (input factors); 2) the characteristics, policies, and programs of the system itself (throughput factors); and 3) the economic and social conditions of the surrounding community, state, and nation (environmental factors). A dropout rate is an output or result of the school's educational activity, and a function of the input, throughput, and environmental factors associated with the system. (See Figure 1) Under this model, if student characteristics (input factors) and environmental factors are held constant, then changes in a system's dropout rate are a function of changes in the system's internal processes (throughput).

The most important characteristic of these processes is the educational experience the system produces for its students. Students, in varying degrees of awareness, will be either more or less satisfied with this experience. Probably the ultimate expression of dissatisfaction is the choice to drop out. On the other hand, many who stay in school may be extremely dissatified with their experience but do not believe they have the option to leave. Lessor expressions of dissatisfaction with one's

schooling include passive resistance to learning, failing grades, vandalism, and lack of involvement in school related activities.

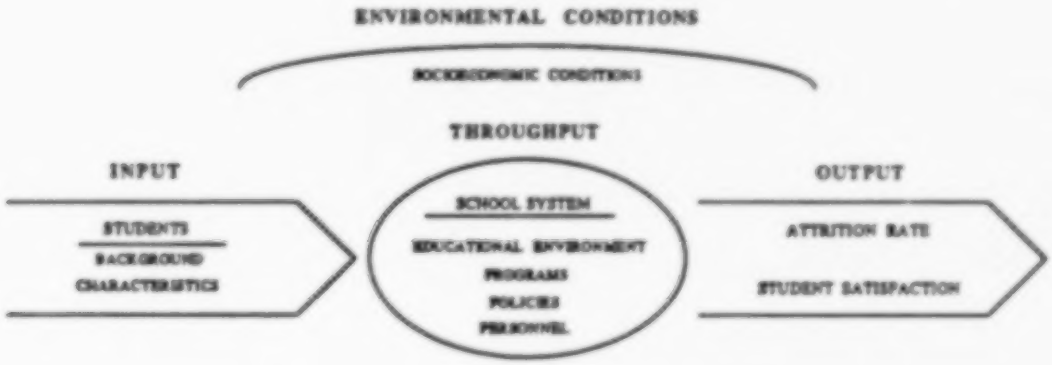

FIGURE 1

SYSTEMS FRAMEWORK FOR STUDENT ATTRITION

When a dissatisfied student contemplates dropping out, the student sees alternatives and anticipates them to be no worse and perhaps better than the school experience. The trend in a system's dropout rate can be construed, assuming the other factors are equal, as measuring the rising or falling level of student satisfaction.

Dissatisfaction, however, is not the explanation of all dropping out. A few students leave because of factors beyond their control such as the need to support a family upon the death of a parent.

The great majority of dropouts see themselves as persistently and broadly failing; the school experience for them is one of day-to-day failure. A small percentage find school unsatisfying for other reasons. For example, some are so bright that school may become intolerably boring for them. Studies have found that few dropouts leave because the alternatives, such as full-time work, are irresistably attractive. They leave to escape failing in school. However, within months, dropouts usually begin to regret their decision. [Davis and Doss, 1982; Peng and Takai, 1984; Wehlage, 1983]

Thus, when other factors are stable, changes in the level of student satisfaction with the school experience are reflected in changes in the school system's dropout rate. Trends in dropout rates measure changes

in the system's effectiveness in creating an educational environment that students find satisfying. This does not mean that the comparison of dropout rates among school districts can be interpreted as measuring their relative effectiveness. The proposition that changes in a district's dropout rate measures changes in effectiveness depends upon the assumption that entering student body characteristics and economic and social conditions vary little (or irrelevantly) over a period of time. Generally, this is reasonable assumption within a school district.

However, it is very unlikely that student characteristics and environmental conditions of any two school districts are sufficiently alike to allow the conclusion that significant differences in their dropout rates measure the relative effectiveness of the two districts. For example, research has found sizable differences among the high school dropout rates of students from different racial/ethnic backgrounds. If the racial/ethnic mix of two school districts is significantly different, this factor alone would almost certainly overwhelm any difference produced by differences in the quality of the educational environments.

Even if dropout rates among districts could be compared, would there be a real point in doing so? Presumably all districts intend to graduate as many of their students as they can. An analysis of their own dropout rate trends is one useful measure of their changing effectiveness or success in graduating students. Comparisons to other districts do not generally yield any useful measures of effectiveness.

Four Types of Explanation

When considering the meaning of dropout data it is helpful to think of explanations as being of four types arising from the intersection of two dimensions (see Figure 2). Along one dimension, there are two <u>levels</u> of explanation. The one level is the individual level where the variable to be explained is a student's dropping out behavior or <u>choice</u>. This dependent variable is the student's decision to either stay or leave. The other level is the level of the school system or district. Here the dependent variable is the dropout <u>rate</u>.

Along the other dimension, there are two <u>kinds</u> of explanation. An explanation can be either academic or empowering. An academic explanation attempts to answer the question, "Why is the dependent variable the way it is?" It searches for and assesses the relative strengths of all possible causes. An empowering explanation, on the other hand, seeks to answer the question, "How can a specified agent, e.g., an individual or an organization, change the dependent variable?" It searches not only for causes but also for causal variables within the agent's control or power.

Both kinds of explanation are valid and useful in their own domains. The test of an academic explanation is whether it is true. The test of an empowering explanation is whether it works; whether it empowers an agent to produce a change in the dependent variable. Academic

KINDS OF EXPLANATION

LEVELS OF EXPLANATION	ACADEMIC	EMPOWERING
INDIVIDUAL (STUDENT)	WHY DOES A STUDENT DROP OUT? CELL 1	HOW CAN A STUDENT BE ENABLED TO STAY IN SCHOOL? CELL 2
SCHOOL SYSTEM (SCHOOL OR DISTRICT)	WHY DOES A SCHOOL SYSTEM HAVE THIS ATTRITION? CELL 3	HOW CAN A SCHOOL SYSTEM DECREASE ITS DROPOUT RATE? CELL 4

FIGURE 2

FOUR TYPES OF EXPLANATIONS

explanations are usually not empowering because, strictly speaking, they do not consider the circumstances, needs, powers, or purposes of agents. On the other hand, empowering explanations require a focus of responsibility for producing change and the circumstances, needs, powers, and purposes of the focal agent are necessarily taken into account. Empowering explanations attempt to analyze the circumstance in a way that may even show how the agent itself causes the dependent variable to behave the way it does. If the agent is a cause, then it therefore has the power to affect the dependent variable and is empowered with respect to it. Academic and empowering explanations can be developed at both the individual and school system levels.

This analysis of explanation types produces four distinct but related research questions. At the individual level, an academic explanation asks, Why does a student drop out? An answer to this question may be completely independent of the student's own attitudes and reasoning. For example, an answer may be that the parents are uneducated and have a low socioeconomic status. This academic question and its answers

contrast sharply with the corresponding empowering question and its possible answers at the individual level. The empowering question is, How can a student be regarded as responsible for his or her dropout related choices and how can the student be enabled to persist? The aim of an empowering explanation is to show how the focal agent can take successful control with repect to the dependent variable. A similiar distinction between academic and empowering explanations exists at the school system level except here the dependent variable is the dropout rate and not the choices of individuals.

Academic explanations are objectively formulated; empowering explanations are not. An empowering explanation is inherently a function of the agent to be empowered, the characteristics and circumstances of the agent, and the desired result to be produced.

Specifying the responsible agent in an empowering explanation is not a matter of assigning blame. Who or what is to blame is beside the point. In order to be empowered an agent must assume responsibility. The assumption of responsibility, in both the logical sense and the practical sense, opens up for exploration a domain of possible relationships between the agent and the dependent variable that may go entirely unnoticed otherwise.

A school system desiring to reduce student attrition can empower itself to do so simply and profoundly by seriously asking the question, How can we see ourselves—the school system—as responsible for, perhaps even the cause of, students dropping out? To ask this question does not imply that students are not responsible for their own success or failure in school. The logic of responsibility is different from the logic of objective causes. An agent is responsible for something to the degree that the agent is willing to assume responsibility for it. The greater the assumption of responsibility the greater the power the agent will discover it has to transform or change the situation.

An inspiring example of this self-fulfilling dynamic is Dr. Martin Luther King, Jr. He declared and acted consistently with his declaration that he would be responsible for the realization of the dream that men and women not be judged by the color of their skin but only by the quality of their character. That declaration deprived no one else of responsibility and in fact inspired others to choose to be responsible for the same dream. Likewise, a school system can declare itself responsible for its dropouts and its attrition rate and at the same time urge students to be responsible for their choices and empower them to make wise choices.

Such logic cannot be incorporated within academic explanations. In fact, responsibility in any form is excluded from academic explanations because they only specify causes. Causes cannot be responsible for their effects; only human beings and human organizations can. It has been argued, in fact, that the emergence of scientific academic explanations for human phenomena has coincided with a decline in the

acknowledgement of personal and corporate responsibility. [See Goble, 1977] Using objective scientific explanations, people have assigned undesirable behavior or effects to causes outside themselves in a manner akin to the claim that "the devil made me do it."

It is interesting to note in this connection a general pattern in the literature on dropping out. Those who work for schools—administrators and teachers—tend to suggest that student-related characteristics explain drop out, while dropouts themselves suggest that it is school characteristics that cause them to leave. Each blames the other. Neither accepts responsibility.

The recent release of an attrition study of a large public school district by an independent outside group provides an example of a dispowering stance taken by a school official. The study reported an enrollment ratio attrition rate of 53% for the 1980 freshman class over their four years of high school. An offical, described as the director of the district's dropout-prevention program, was quoted in an Education Week article (3/6/85) responding to this statistic by saying, "I've been dealing with dropouts for 20 years, and I think the reasons for dropping out are mostly correlated with problems at home. The best way to improve education for kids is to have parents educated." However true this may be, the stance implicit in this official's response disempowers him and his district with respect to lowering its attrition rate.

Until recently, the research literature on dropout has consisted almost exclusively of academic explanations at the individual level (Cell #1 of Figure 2). Advice to students often takes the perspective of empowering an individual student to persist (Cell #2). However, there has been little substantive research in this area. Within the last few years, researchers have turned their attention to academic explanations at the system level (Cell #3) and lately, a few researchers and commentators [see e.g., Hoyt, 1978] have concerned themselves with empowering school systems to improve their dropout rates (Cell #4). They have proposed theories that involve an "interactive" relationship between the school system level and the individual level in which each level has responsibilities for and effects on the other. [E.g., Lenning, Beal, and Sauer, 1980].

Generally, researchers of student attrition have been unaware of distinctions between levels and kinds of explanation and have often produced results confusing to readers by shifting unconsciously among them. For example, a research project may be conducted with intent to assist schools in retaining students but the theoretical structure and findings are couched in academic terms, leaving little in the findings that empowers schools to retain more students. Consequently, many studies leave the impression that little can be done by schools to retain more students to graduation. For this reason, much of the research on student attrition is of little utility in preventing it.

There are two types of research or analytical studies that are sometimes inappropriately considered as offering a kind of explanation for dropping out. One type consists of those studies that present empirical data analyzed in a complex manner. For example, an analysis of a district's dropout rates might produce many breakdowns such as by sex, age, ethnicity, grade level, and grade point average and cross-tabulations such as dropout rates by ethnicity and grade level. The data may even be subjected to statistical tests to determine, for example, whether Whites drop out at significantly different rates than Blacks. Nevertheless, such an analysis produces empirical facts and not an explanation of dropping out or dropout rates. Explanations require identification of causal relationships.

Another type of research study sometimes thought to be an explanation is the presentation of a model that enables the prediction of dropout. As noted in the section reviewing the literature, research studies have shown that dropout can be predicted with an accuracy of over 75%. The predictor variables include ethnicity, socioeconomic status, parents' levels of education, the student's reading and math achievement test scores, grade point average, and whether the student has been held back a grade. Although these variables may enable accurate prediction, they are not necessarily causal variables. Some may be joint effects of other variables that also cause drop out. Although prediction studies are not explanatory, they nevertheless have their uses. If those students who will drop out can be predicted, then perhaps schools can find ways of intervening to prevent them from dropping out.

A Systems Perspective on the Relationship of Levels

Explanations at both the individual level and the school system level can be placed in the systems theory framework. At the individual level, the "system" is the individual student. The student's external environment consists of his or her school, home, and other circumstances such as friends and social and athletic activities. From this environment, the student takes (consciously or unconsciously, voluntarily or not) such "inputs" as opinions, ideas, knowledge, rules, money, relationships, and rewards and unpleasant experiences as consequences to choices of behavior. These inputs are "processed" by the student's "throughput" activities which are a function of student's characteristics, personality, attitudes, values, goals, beliefs and skills. The result is "outcome" behavior. For student attrition, the outcomes of interest are levels of satisfaction with school and choices about persisting or dropping out.

The systems perspective greatly clarifies the functional relationship between levels of entities or agents (students or schools) and the corresponding levels of explanation (explanations at the individual or school system levels). The functional connection between schools and individual students (see Figure 3) is that the internal environment of

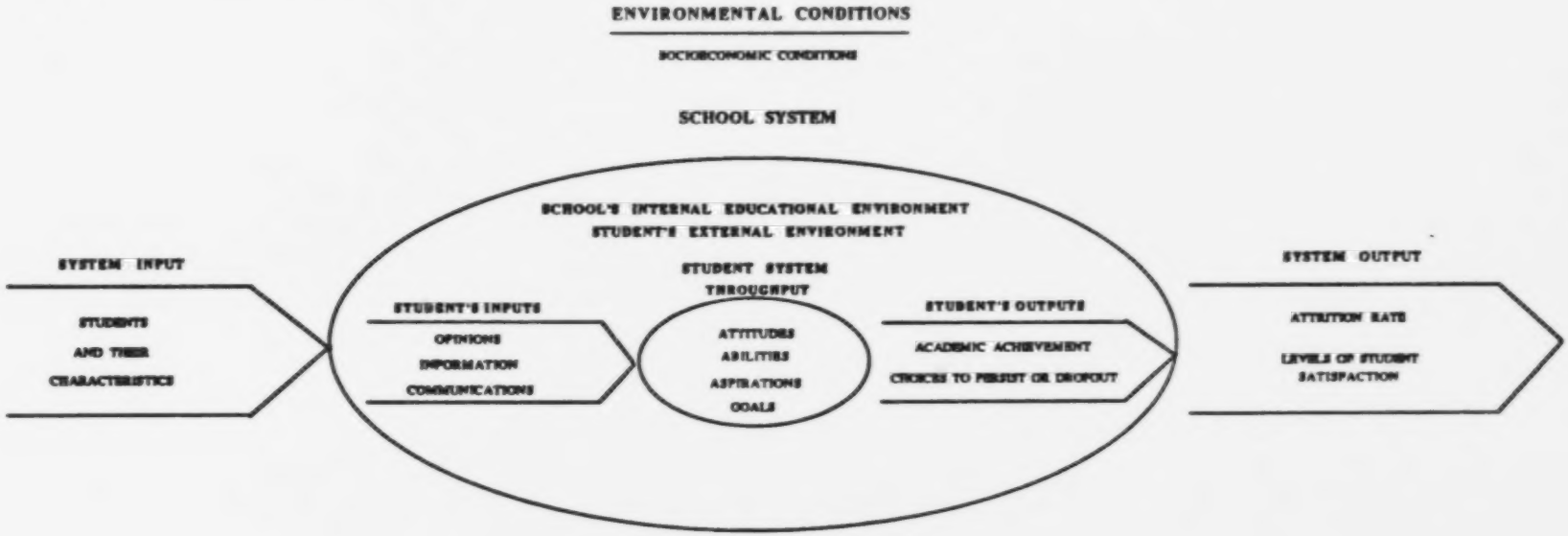

FIGURE 3

THE SCHOOL'S INTERNAL ENVIRONMENT IS THE STUDENT'S EXTERNAL ENVIRONMENT

the school is the student's external environment. This relationship is called "nesting." One system is nested within the other.

Given this connection, it is relevant to consider the individual level even though an empowering explanation is sought at the school system level. However, an explanation at the individual level, even an empowering one, does not necessarily enable a school system to do anything about its dropout rate as a whole. But the school system is in a position to influence the dropout behavior of students. The systems perspective points to the need to enable students to function successfully in their school environment.

IV. AN EMPOWERING THEORY OF RETENTION

Figure 4 proposes a general comprehensive model of student persistence and dropout based upon the nested interaction of school system and student. It is a model that relates the school system and its behavior to the student and his or her behavior. The medium of contact is the meaning a student attributes to the circumstances, events, and communications in the school environment. The model is interactive and longitudinal. There are many feedback and interactive cycles occuring over time.

The model has three sections and eight distinct parts. The input section is composed of (a) institutional characteristics, (b) student background characteristics, and (c) external environmental factors. The throughput process section is composed of (a) the school environment created by the inputs, (b) the meanings attributed to that environment by each individual student and (c) the resulting subjective experiences of being supported and meeting challenges. The output section is composed of (a) outcomes for the student such as satisfaction and achievements and (b) choices made such as the choice to persist or dropout.

What is involved in the choice to persist or drop out? Fundamentally, whether a student chooses to stay in school depends upon (1) his or her degree of satisfaction and (2) whether he or she thinks that there is an alternative which would be more satisfying. Students make choices on the basis of a kind of cost/benefit analysis of perceived alternatives with an aim of maximizing personal satisfaction.

Two general sources of satisfaction can be distinguished. Satisfaction varies according to the degree to which a person (1) experiences his or her environment as accepting, loving, supportive, enriching, and enabling and (2) is able (or expects to be able) to realize his or her goals within that environment. These sources of satisfaction are the experiences of "being supported" and "meeting challenges."

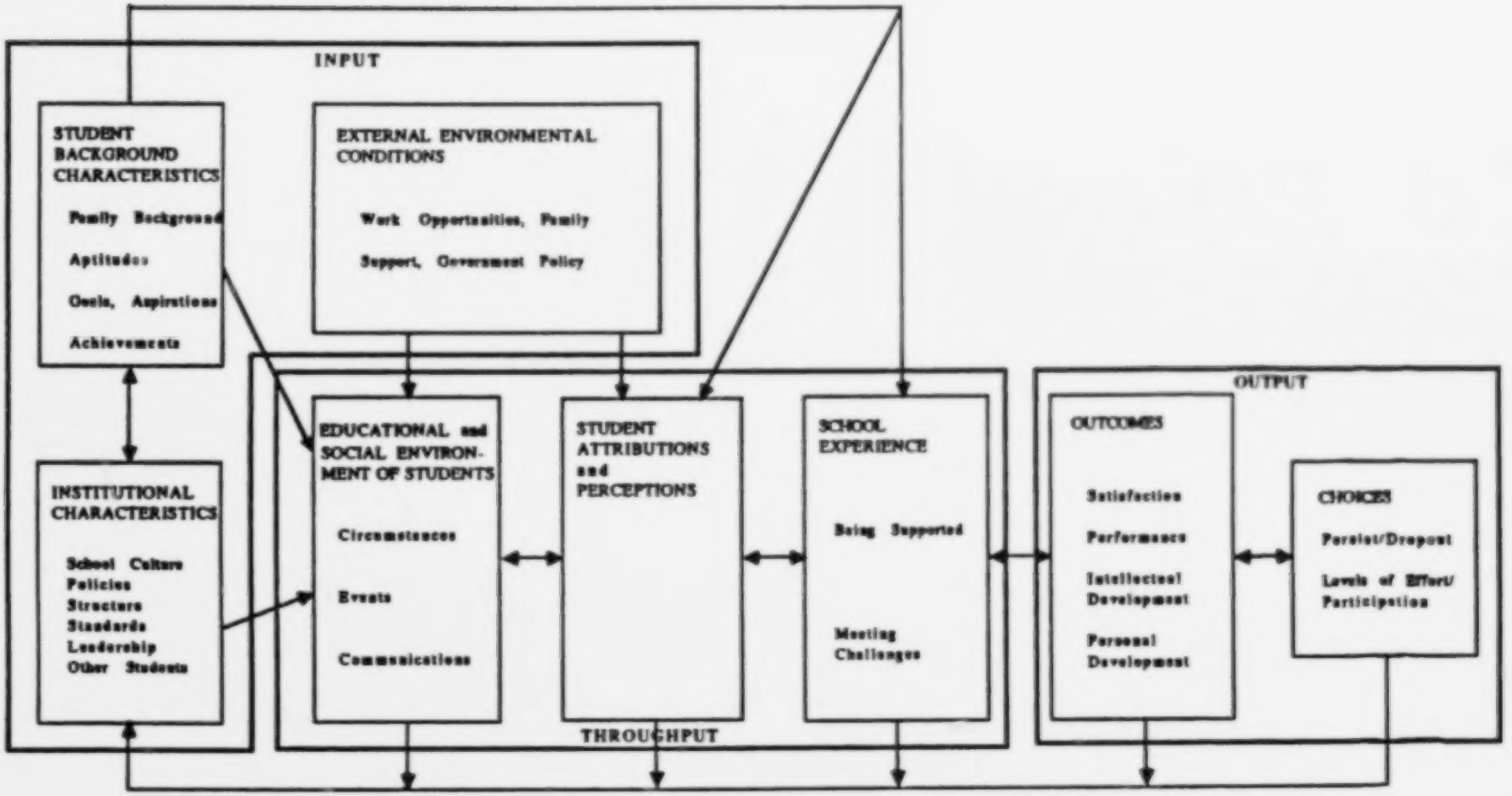

FIGURE 4

A GENERAL SYSTEMS MODEL FOR STUDENT RETENTION

Being supported depends upon feeling accepted and appreciated for one's self and the contributions one makes. It depends upon the faith expressed by others in one's abilities. It depends upon feeling validated. Meeting challenges depends upon developing and recognizing personally meaningful goals and selecting an environment and paths within it which enable one to achieve those goals.

Neither source of satisfaction varies directly with the circumstances and events within a person's environment. Rather, they are mediated by the person's expectations and the meaning the person attributes to the events and circumstances. Satisfaction is highly subjective. An activity that is fun for one may not be for another. A goal that is realistic and desirable for one may be neither for another. Since two people can attribute entirely different meanings to the same circumstance, event, or communication, it is easy to imagine how one person might find a circumstance or event a source of satisfaction while another would not.

How a student understands his or her environment or the meaning he or she attributes to its circumstances, events, and communications is itself influenced in a circular manner by factors in the school environment, especially by interactions and communications with teachers and peers. Explicit and implicit communications from administrators, teachers, counselors, peers, and others tell a student how to interpret his or her experience in the environment and what expectations to have. These interpreted experiences in turn determine the student's level of satisfaction and his or her choice to persist or not.

The model in Figure 4 proposes that students' background characteristics form a profile of individual differences students bring to school. The double arrow between student background characteristics and institutional factors suggests that these variables interact. These student background characteristics influence fairly directly the way a student understands his environment and experiences being support and meeting challenges.

Moreover, other students attending the school form a substantial part of a student's school environment. Thus, the school's characteristics together with the characteristics of the entering and continuing student body form the school environment in which the student finds him or herself [Astin, 1968; Stern, 1970; Trent & Cohen, 1973]. The nature of the school environment is also affected by factors external to it such as the nature of the surrounding community and the educational policies of governmental bodies.

Once enrolled, the student interacts with the school environment created from the interaction of the three sets of input variables. This school environment both determines and is determined by students' individual and collective attributions and perceptions. Hence, the double arrow between these parts. If the school's environment is friendly, then generally students will perceive and experience it in that way. This

perception and experience of friendliness in turn creates a framework through which the environment is experienced and according to which people act. Thus, students and others tend to act friendly because they think it is an environment in which they can do that. And so the attribution that the environment is friendly tends to be self-fulfilling.

On the other hand, it is possible, because of initial predispositions and background characteristics, for any given student to perceive the school environment as threatening even though most other students do not. Such a student is likely, for example, to filter out of his or her experience attempts by others to be friendly and thus feel unsupported in an environment that many others find supportive. Such experiences of not being supported reinforce the student's initial judgement that the school environment is threatening. Hence, the double arrow between student attributions and student experiences in the model.

As discussed earlier, a student's experiences can be divided into two general types: that of being supported (or not) and that of meeting challenges (or not). Resulting from these experiences are various outcomes such as performance levels and personal development. The most important of these outcomes for our purposes is the student's level of satisfaction. The degree to which a student is satisfied with his or her school environment and his or her expectations of satisfaction with available alternative environments will be the basis upon which the choice to persist or drop out is made.

In tracing the relationship between a student and the school environment, this model is not intended as an outline to a research program that would determine the strength of all factors in the decision to drop out. Such a program would be hopelessly complex.

The purpose of this model is different. It is to provide some guidance to the school system-level question of what can be done to decrease student attrition rates. From the perspective of this model, a student has two general concerns. First, how can I improve my experience of being supported? Second, how can I improve my experience of meeting challenges? Looking at these questions from the point of view of the school system, these questions become two tasks. How can the school develop its environment so that it has, on the whole, a larger capacity to provide support? And how can the school enable students to define and successfuly meet personal challenges especially scholastic challenges?

In this way, the usual student retention issues are reconceptualized. The problem is not so much how to identify dropout-prone students and explain their behavior (an academic explantion) as it is to increase support and challenge (an empowering task). Support and challenge seem to be required simultaneously. Hoyt [1978] observes:

> Enduring satisfactions (sound choices) require support from both sources of satisfaction. A student may feel comfortable in his or her environment (accepted by friends, free from financial concern, confident in meeting academic requirements) and yet be uncommitted to any personal goals. Another student may be systematically progressing toward admission to a professional school which, upon completion, will open the door to a highly satisfying career and style of life; but this may require sacrificing interpersonal pleasures, engaging in cuthroat competition, and accepting serious threats to health. Neither type of student will find enduring satisfaction. (p.79)

Support for this model comes from the extensive studies of educational environments by Rudolph H. Moos [1979]. Moos studied a sample of 10,000 junior and senior high school students in more than 500 classrooms. He found that:

> Classroom social environments affected student reactions... [S]tudents in supportive task and supportive competition oriented classes [two of six types of class environments identified] showed the most positive reactions on the outcome criteria, including satisfaction with learning. These classes combine an affective concern with students as people with an emphasis on students working hard for academic rewards in a coherent, organized context. They were higher on friendship formation and lower on alienation. (p.192)

His studies support the notion that there is a powerful synergetic relationship between support and challenge. "When competition was emphasized in a ...setting lacking cohesion and support, students were more alienated and less comfortable" and achieved less (p.192). Moos, who uses the term "structure" in the way "challenge" is used here, concludes:

> The relative emphasis on structure and support is important in mediating student reactions to the learning environment. A moderate amount of structure (particularly clarity of expectations) in a class that emphasizes student-student interaction and/or teacher support relates positively to commitment and satisfaction. [G]ains on traditional achievement measures are most likely to occur when there is a combination of warm and supportive relationships, an emphasis on specific academic tasks and accomplishments, and a reasonably clear, orderly, and well-structured milieu. (p.197)

The approach to increasing retention that this model suggests, then, is for a school system to develop its environment so that it provides

students with increasing levels of individual, personalized support and becomes increasingly effective at assisting students to recognize, define, and achieve their personal and educational goals. The result will be not only higher general levels of student satisfaction but also increased levels of student performance and participation in activities which contribute to the school.

V. SUMMARY

The purpose of this essay has been to provide a context of information and theory concerning school dropout and attrition rates. Several definitions of the terms 'dropout' and 'attrition rate' were distinguished. Since each definition would produce a different dropout rate, great care must be exercised in comparing statistics from different reports and sources. An examination of the research literature reveals a number of consistent correlates to dropout involving demographic, school-related, and psychological characteristics of students. These include sex, racial/ethnic background, socioeconomic status, language minority status, prior school performance, achievement test scores, and academic self-esteem. Several studies have found dropout in high school to be highly predictable from readily available data by as early as the third grade. The great majority of dropouts had been very poor academic performers for several years prior to dropping out. Students leave school in order to escape the day-to-day experience of failure. Hence enabling students to perform successfully in school would increase student retention to graduation.

Students report a variety of school related factors as chief among their reasons for dropping out. Rather than citing irresistable outside attractions, many dropouts acknowledge their poor academic performance as their major reason for leaving school. Gary Wehlage's interviews with marginal students gives a sense of their experience of failure and alienation from school and their more successful peers.

When student characteristics and socioeconomic conditions are stable, changes in a school system's attrition rate measures its changing effectiveness in creating an educational environment in which students can be successful and in meeting the goal of providing all young people with a high school diploma. In general, however, it is almost impossible to use comparisons of dropout rates among school districts as a measure of their relative effectiveness.

To establish the foundation for a theory of retention, four types of dropout/attrition explanation were distinguished. There are two kinds of explanation, academic and empowering, each with two levels of analysis, individual and school system. Academic explanations have an inherent structure that obscures the power of school systems to reduce their attrition rates. Empowering explanations take into account the circumstances, needs, powers, and purposes of agents that wish to produce change and, in the case of student attrition, show just how

school systems can affect their own attrition rates by assuming responsibility for it. The willingness to be responsible reveals the powers and mechanisms to affect the change.

Using a systems theory perspective, the student and the school are both regarded as systems; the student being nested within the larger school system. This framework provides a useful conceptual connection between the levels of analysis. The functional connection is that the student's external environment is the school system's internal environment.

Within this systems perspective an empowering theory of student retention is proposed. This model connects the school system level with the individual student level through the meanings the student attributes to his or her external environment - the school system's internal-created educational and social environment. Students desire to maximize their personal satisfaction. This satisfaction depends upon two sources: the experiences of being supported and of meeting challenges. According to this model, a school system can therefore increase its student retention rate by successfully delivering communications of personal support to each student and enabling each student to successfully meet meaningful academic challenges.

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